

EVALUATION OF INSTRUCTIONAL AND REMEDIAL SOFTWARE FOR SOL INSTRUCTION

The purpose of the review is to provide school divisions participating in the Standards of Learning Web-based Technology Initiative with evaluations and correlation of technology-based materials for instruction and remediation. The software review committee of a school division has reviewed the product and submitted the review.

- Only reviews of software/Web sites that are found to be effective for instruction and/or remediation are submitted by a school division.

School Division: York County School Division

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PRODUCT INFORMATION

- Title: Geometer's Sketchpad, The
- Version #: 4
- Copyright Date: Fall 2001
- Title of Series: Dynamic Geometry Software for Exploring Mathematics
- Title of Component [module] if applicable:
- Publisher/producer: Key College Publishing / Key Curriculum Press
- System Requirements:
 - Windows:
 - Pentium-based system or equivalent; Windows 95 or NT 4.0 or later; 16 MB RAM; CD-ROM drive
 - Macintosh:
 - PowerPC-based system; Mac OS 8.6 or later; 16 MB RAM; CD-ROM drive

Standards Of Learning Correlations And Degree Of Correlation With the Content of the Software Product

MATHEMATICS:

☒ Mathematics SOL #6.10; 6.11; 6.12; 6.13; 6.14; 6.15; 6.16; 6.17; 7.7; 7.8; 7.9; 7.10; 7.11; 7.12; 7.13; 7.19; 8.6; 8.7; 8.8; 8.9; 8.10; 8.14; 8.15; 8.16 (Exceptional), SOL #6.18; 6.21; 6.22; 6.23; 7.6; 7.16; 7.17; 7.18; 7.22; 8.17 (Moderate), SOL #8.1; 8.4; 8.5; 8.11; 8.12; 8.13 (Minimum)

☒ Discrete Mathematics SOL #DM.6; DM.7; DM.9 (Moderate)

- ☒ Mathematics – Probability and Statistics SOL #PS11; PS17; PS21 (Exceptional), SOL #PS.1; PS2; PS3; PS4; PS5; PS7; PS13; PS18 (Moderate), SOL #PS10; PS14; PS15; PS16; (Minimum)
- ☒ Algebra I SOL #A.1; A.2; A.3; A.5; A.6; A.7; A.9; A.10; A.11; A.14; A.15; A.18 (Exceptional), SOL #A.4; A.8; A.16 (Moderate), SOL #A.13 (Minimum)
- ☒ Geometry SOL #G.2; G.3; G.4; G.5; G.6; G.7; G.8; G.9; G.10; G.11; G.12; G.13; G.14 (Exceptional), SOL #G.1 (Moderate)
- ☒ Algebra II SOL #AII.18; AII.19 (Exceptional), SOL #AII.4; AII.6; AII.7; AII.9; AII.10; AII.13; AII.14; AII.15 (Moderate), SOL #AII.8; AII.11; AII.12 (Minimum)
- ☒ Trigonometry SOL #T.1; T.2; T.4; T.6; T.9 (Exceptional), SOL #T.7; T.8 (Moderate)
- ☒ Algebra II and Trigonometry SOL #AII/T.15; AII/T.18; AII/T.29 (Exceptional), SOL #AII/T.4; AII/T.6; AII/T.7; AII/T.8; AII/T.9; AII/T.10; AII/T.13; AII/T.14; AII/T.19; AII/T.26; AII/T.28 (Moderate), SOL #AII/T.21; AII/T.22; AII/T.24; (Minimum)
- ☒ Mathematical Analysis SOL #MA.1; MA.2; MA.7; MA.8; MA.10MA.11; MA.13 (Exceptional), SOL #MA.3; MA.9;MA.12 (Moderate), SOL #MA.4; MA.5; (Minimum)
- ☒ Advanced Placement Calculus SOL #APC.2; APC.2; APC.3; APC.4 (Moderate), SOL #APC.6; APC.7; APC.8 (Minimum)

SCIENCE:

- ☒ Science SOL #6.1; (Minimum)
- ☒ Life Science SOL # (Exceptional), SOL # (Exceptional), SOL # (Exceptional)
- ☒ Earth Science SOL #ES.1 (Minimum)
- ☒ Biology SOL #BIO.1 (Minimum)
- ☒ Chemistry SOL #CH.1 (Minimum)
- ☒ Physics SOL #PH.2 (Minimum)

UTILIZATION AND TEACHER PREPARATION

Sketchpad accurately creates and measures visual geometric scenarios, as well as mathematical diagrams and graphs, allowing both teachers and students to use this as a tool for productivity and mathematical exploration. The software lends itself well to science as well as math courses. Two versions are now being used in the high schools and middle schools in this division. Version 4, installed most recently at one of the middle schools, is now the version of choice over version 3, allowing additional uses of the graphing calculator, as well as a living memory of sketch commands, eliminating the need for recording a script. Teachers now beginning to use version 4 have used it primarily as an instructional delivery tool (laptop & projector or large screen monitor), using it to describe geometric events like those involved in transformations. They have also used it to create images that can be transferred to other software tools i.e. PowerPoint. Students have used it in two settings: in centers - groups of 6, paired using 3 computers, and whole group in lab settings. Advantages of this software reach beyond the average child, extending to all students by allowing visual representations of mathematical concepts.

Type and degree of teacher training required to support effective utilization of the software/Web site.

Classroom usage has coincided with software training. Short training sessions have taken place during the initial infusion of software. Additional trainings take place during professional days and upon request. Modeling for teachers is necessary and occurs when they observe actual classes being taught using the software and during professional development courses. As with most productivity software, continued use beyond training sessions is necessary for users to reach a mastery level. Because the software is so versatile, ranging in uses from basic mathematical investigations to animated complex systems, comfort levels for its use comes quickly. However, for higher-level math concepts, a more complete understanding of the various tools in Sketchpad is necessary. This is not software that is easily learned in a two-day training session. A trainer possessing a complete understanding of its uses is necessary, and can easily demonstrate the power behind Sketchpad. This type of training can make this a highly sought after tool for teachers in the classroom, and provides teachers with the motivation to learn more.

Vendor teacher training available for this product - Not sure

If "YES," is cost: included in purchase price;

is training: on-site with company presenter;

quality of training: exceeded expectations

DIVISION'S ADDITIONAL COMMENTS:

Support contacts are listed in the manual, along with a phone number.

TECHNICAL ASPECTS and TEACHER SUPPORT MATERIALS

Indicate if the software/Web site has been reviewed in either of the following sources:

- In *EvaluTech* (<http://www.evalutech.sreb.org/>) - Yes or No: No
- if yes - date reviewed:

- In *Educational Software Preview Guide* (ISTE)
(<http://www.pen.k12.va.us/VDOE/Technology/imt.html>) - Yes or No: Yes
-
- if yes - date reviewed: NA